VOLVO

Service Manual

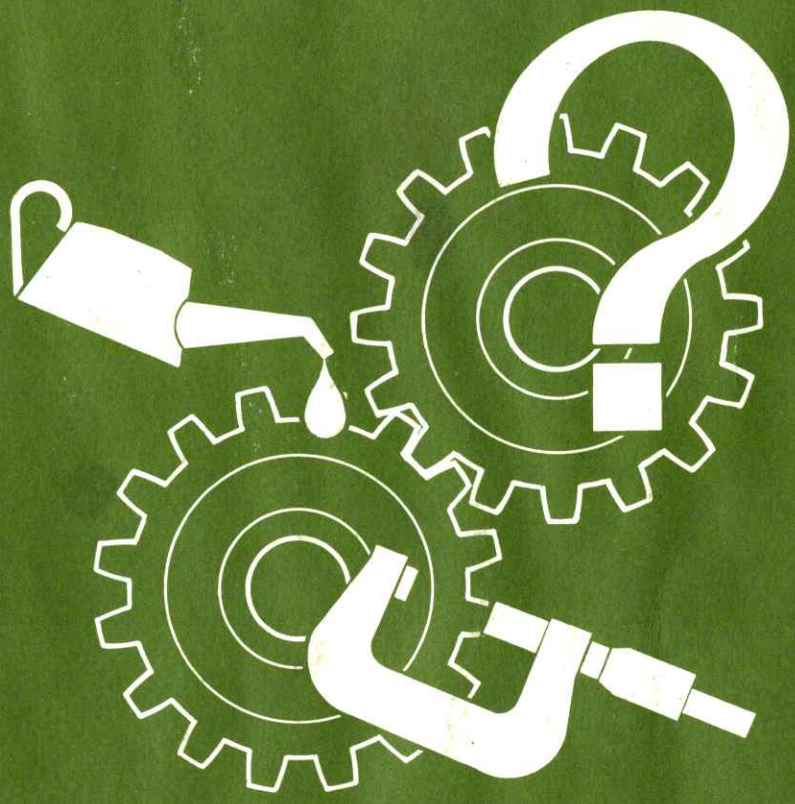
Fault tracing
Design
Repair
Function
Maintenance

Section 1 (17)

Volvo
Service programme

S40/V40 1996-
940/S90/V90/
C70/S70/V70 1997-

TP 1715031



Volvo Car Corporation

Modifications since earlier editions:

Volvos Service programme was previously split into two books.

This edition is an update of Service Manual: Volvo Service programme.

Volvo Service programme according to: **"Book 2"** is not updated and no new book will be produced.

In general the information in: **"Book 2"** still applies.

Information for the later modelyears should be obtained from the last edition of the Service Manual or Service Bulletins which apply for the respective group.

Modifications to June 1997 included
Modifications introduced after the above date are not covered in this manual.
See Service Bulletins as applicable.

Volvos are sold in versions adapted for different markets. These adaptions depend on many factors including legal, taxation and market requirements. This manual may therefore show illustrations and text which do not apply to cars in your country.

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Contents

Volvo Service programme **2**
Preface 2
Specifications 4
Pre-delivery service 14
Maintenance service 15
Option 33
Test driving 35

The following levels of observations, cautions and warnings are used in this Service Documentation:

Warning! Describes a situation, action or event where care is required to avoid personal injury.

Caution! Describes a situation, action or event where care is required to avoid damage to a product.

Note! Describes a situation, action or event where a recommendation is made that will enable a repair to be correctly carried out. No personal injury or damage to a product.

Hint: Describes an event which can be of interest for the reader for the purpose of training or greater understanding of the operation involved.

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We reserve the right to make alterations without prior notification.

Volvo Service programme

Preface

Work with the Volvo Service programme as follows

This service programme covers the following models:
S40, V40 model year 1996–, 940, S90, V90,C70, S70 and V70 model year 1997–.

Volvos Service programme was previously split into two books.

Because the Service programme according to: **"Book 1"** now applies to model years 1996, 1997 and 1998, all older information has been discontinued.
Volvo Service programme according to: "Book 2" is not updated.
In general the information which applies is contained in **"Book 2"**.
New current information applying to later model years can be obtained from Service Manuals and Service Bulletins for the relevant group.

The Volvo maintenance Service programme is divided into two sections for each model.

S40/V40 Section A covers the intervals: 0 - 150 000km and Section B covers the intervals: 165 000 - 300 000km.
940/S90/V90 Section C covers intervals: 0 - 150 000km and Section D covers intervals 165 000 - 300 000km.
C70/S70/V70 Section E covers the interval: 0 - 150 000km and section F the interval: 165 000 - 300 000km.
See chapter: *Maintenance service - Content note* page 15.
This is an adjustment for loading the service programme into VADIS.

Pre-delivery service:

All cars undergo a delivery inspection at the factory.
A complete final check of the car functions is carried out.
The checking which is required after this consists of: *Pre-delivery service* page 14.

Cars with gasoline engines:

Service interval for maintenance service: 15 000 km service intervals for all series.
Turbocharged engines require CCMC G5/ACEA A3-96 quality engine oil.
All other engines the oil quality should correspond to at least CCMC G4/ACEA A2–96 minimum class G4.
See: *Lubricating system* page 7.

> **Note! Extra oil changes in certain markets:**
> The S40/V40, C70/S70/V70 and 940–series with turbocharged engine have an extra oil change when the car has passed 5 000 kilometers, after delivery.
> The service indicator should not be reset after this oil change.

In case of heavy usage a shorter oil change interval applies.
See the instruction book for the relevant model.

For cars with diesel engines:

Service interval for maintenance service: 15 000 km.
Oil quality see Service Bulletin no.: 1-17-815, and chapter: *Lubricating system* page 7.

Test driving

Test driving should be done after every maintenance service.
Test driving is carried out as a final check that the car is in the best condition when it leaves the workshop. See: *Test driving* page 35.

The Volvo Service programme is developed for normal conditions.

Some local differences can occur depending on climate, market conditions and legal requirements etc.
Customers with driving habits that are markedly different from the normal motorist should have a more "personalized" service programme developed for them.
Customers who do not travel the 15 000 km distance interval in a year should be serviced on a time based interval instead, which means that the car should be serviced once a year.

Specifications

Engine

Valve clearance

Engine:		Cold engine (mm)	Hot engine (mm)
B 200, B 230	When adjusting.[1]	0.40	0.45
	When checking.[2]	0.30-0.40	0.35-0.45
All other engines	Do not adjust.		

[1] The same play for intake and exhaust valves
[2] The same play for intake and exhaust valves

Belt tension — Timing belt

Engine:	Check	Setting	Tool
B 200/230	Manually adjusting belts (no set value)		
B 4164S/4184S/4204S/4194T	2.5-4.0	Automatic belt tensioner.	998 **8500**
B 5252/5254 (21 mm belt)	3.5-4.6		
B 5202/5252 (23 mm belt)	2.7-4,		
B 5204/5234/5254 (23 mm belt)	2.5-4.0		
B 6304 (21 mm belt)	3.5-4.6		
B 6304 (23 mm belt)	3.0-4.0		
B 6254/6304 (28 mm belt)	2.5-3.5		
D 5252T	Manually adjusting belts (no set value)		
D 4192T		7.5	999 **5506/5434**

Belt tension — Auxiliaries belt —S40/V40

Engine:	Check[1] minimum value	"Run in" belt setting	Setting new belt
D 4192T (6-toothed belt) Tool: 999 **5434/5436**			
With air conditioning (A/C) (automatic belt tensioner)	Automatic belt tensioner. Control value between 90.5 - 100 mm.		
Without AC	3.0 mm.	2.5 mm.	1.5-2.5 mm
All other engines	Do not need adjusted. Automatic belt tensioner.		

[1] If belt tension drops below its nominal value, it should be adjusted to the "run-in" belt value.

Fuel injection system

CO-idling speed, S40/V40.

Engine:	CO content in %		Idling speed r/s (rpm)
	Setting values	Control value	
B 4164S/4184S/4204S	Cannot be adjusted	<0.2	12.5 (750)
B4194T	Cannot be adjusted	<0.2	12.9 (775)

CO-idling speed, 940/S90/V90

Engine:	CO content in %		Idling speed r/s (rpm)
	Setting value	Control value	
B 200GT	1.0	0.5-2.0	12.9 (775)
B 200FT[1]	Cannot be adjusted	0.4-0.8	13.3 (800)
B 230GK	1.0	0.5-2.0	13.3 (800)
B 230FK[2]	Cannot be adjusted	0.4-0.8	12.5 (750)
B 6254F	Cannot be adjusted	0.4-0.8	12.5 (750)
B 6254G	1.0	0.5-2.0	12.5 (750)
B 6304F[3]	Cannot be adjusted	0.4-0.8	12.5 (750)
B6304G	1.0	0.5-2.0	12.5 (750)

[1] **NOTE!** Heated oxygen sensor (HO2S) connected. CO content is measured upstream of the catalytic converter
[2] **NOTE!** Heated oxygen sensor (HO2S) connected. CO content is measured upstream of the catalytic converter
[3] **NOTE!** Heated oxygen sensor (HO2S) connected. CO content is measured upstream of the catalytic converter

CO-idling speed, C70/S70/V70.

Engine:	CO content in %		Idling speed r/s (rpm)
	Setting values	Control value	1997-
B 5202/5252 F	Cannot be adjusted	0.2-1.0	14.2 (850)[1]
B 5204/5254 F	Cannot be adjusted	0.2-1.0	14.2 (850)[2]
B 5204/5234 T	Cannot be adjusted	0.2-1.0	14.2 (850)[3]
B 5254T	Cannot be adjusted	0.2-1.0	14.2 (850)[4]

[1] Idling speed cannot be adjusted. Idling speed with engine cooling fan (FC) activated: 1992: 13.7 r/s (825 rpm), 1993-: 13.3 r/s (800 rpm), 1994-: 14.2 rps (850 rpm)
[2] Idling speed cannot be adjusted. Idling speed with engine cooling fan (FC) activated: 1992: 13.7 r/s (825 r/min), 1993: 13.3 r/s (800 rpm), 1994-: 14.2 rps (850 rpm)
[3] Idling speed cannot be adjusted. Idling speed with engine cooling fan (FC) activated: 1992: 13.7 r/s (825 r/min), 1993: 13.3 r/s (800 rpm), 1994-: 14.2 rps (850 rpm)
[4] Idling speed cannot be adjusted. Idling speed with engine cooling fan (FC) activated: 1992: 13.7 r/s (825 r/min), 1993: 13.3 r/s (800 rpm), 1994-: 14.2 rps (850 rpm)

S70/V70 TDI, Diesel engine. Injection timing and idling speed

Engine:	Injection timing (Before Top Dead Center) etc.		Idling speed r/s (rpm)	
	Setting values	Control value	Low	High
D 5252T	0.275	±0.025	14.0 (840)	80.6 (4840)

S40/V40 TDI, Diesel engine. Injection timing and idling speed.

Engine:	Injection timing (Before Top Dead Center)		Idling speed r/s (rpm)	
	Setting values	Control value	Low	High
D 4192T	According to data on fuel injection pump		13.7±0.4 (825±25)	72.5±1.7 (4350±100) Cannot be adjusted

Lubricating system

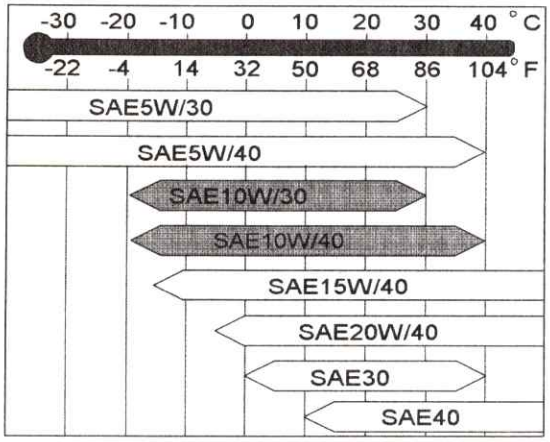
Engine oils, quality specifications

Engine:	CCMC	ACEA	Volvo P/N
Gasoline powered turbo charged engines	Lowest Class G5	ACEA A3-96	116 1466-6 (4 liters) 116 1465-8 (1 liter)
Other gasoline engines	Lowest class G4	ACEA A2-96	116 1464-1 (4 liters) 116 1463-3 (1 liter)
Diesel engines	Lowest class PD2	ACEA B2-96 Applies: S40/V40 ACEA B3-96 Applies: S70/V70	The S70/V70 should use the following oil: 116 1466-6 (4 liters) 116 1465-8 (1 liter)

Viscosity

The temperature range refers to a constant air temperature.

The table applies for engines to C70/S70/V70 and 940, S90/V90



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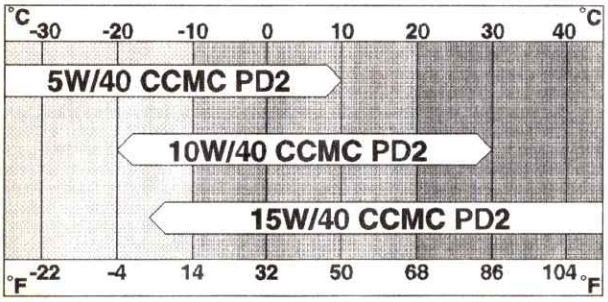
The table applies to the S40/V40, gasoline engine



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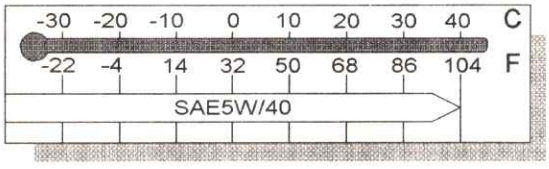
The table applies S40/V40, diesel engines



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Note! In extreme driving conditions resulting in high oil consumption, for example when driving in mountains with high levels of engine braking or high speed motorway driving SAE 15W/40 or SAE 20W/40 is recommended.
Note the lower temperature however.

Oil volume including oil filter

C70/S70/V70/940/S90/V90		**S40/V40**	
Engine:	**Volume: Liters**	**Engine:**	**Volume: Liters**
B 200/230	3.85	B 4164S/4184S/4204S -1997	5.4
B 5202/5252/5204/ 5234/5254 1997-[1]	5.8	B 4194T[2] B4164S/4184S/4204S 1998-	4.3
B 6254/6304	5.75	D 4192T	5.0
D 5254	6.0		

[1] Applies to C70/S70/V70.
[2] 4.0 liters without filter change.

Spark plugs and battery data

Petrol engines

Spark plugs

Engine:	Spark gap:	Tightening torques:	**Volvo kit number:**
B 4164S/4184S/4204S	1.1-1.3	25	272 207-2
B 4194T	1.1-1.3	25	272 344-3
B 200FT/GT	1.1-1.3	25	270 747-9
B 230FK/GK	0.7-0.8	25	270 746-1
B 5204	0.7-0.8	25	271 603-3
B 5202/5252, B 5254[1]	0.7-0.8	25	271 727-0
B 5204/5234/5254T	0.7-0.8	25	272 313-8
B 6254/6304F/G	0.7-0.8	25	271 636-3

[1] **NOTE!** For hard driving use kit number: 271 603-3.

Battery

Standing voltage . . . . . 12.0 volt

Starting voltage . . . . . 9.5 volt

Electrolyte spec. gravity:

Fully charged battery 1.28

Charging should occur at 1.21

Transmission

Clutch, transmission, rear axle and power steering.

Clutch

The clutch is hydraulically operated on all manual transmission.

Use hydraulic fluid quality: **DOT 4+.**

Automatic transmission

940	**AW 70/71/72**	**ZF 4 HP 22**
Oil change, volume	approximately 6.0 liters	approximately 6.0 liters
Transmission oil grade:	Dexron II D/E (III)	Dexron II D/E (III)
S40/V40/C70/S70/V70	**AW 50-42 (does not usually need an oil change[1])**	
Oil change, volume including flushing	approximately 6.5 l	
Transmission oil grade ATF	Dexron II E/Dexron III and Ford Mercon. Most fulfill both specifications.	
S90/V90	**AW 30-43 (does not usually require an oil change)**	
Oil change, volume including flushing	approximately 6.5 l	
Oil quality ATF	Dexron II E/Dexron III and Ford Mercon. Most fulfill both specifications.	

[1] **NOTE!** Cars used as taxis and cars mainly used for towing: Oil change every 75 000 km

Manual transmission (no oil change required):

S40/V40: M3P/M5P/M5D

Transmission oil grade: . . . . . Volvo P/N: 33 45 534-6

Volume: . . . . . 3.4 liters

Note! No other types of oil may be used.

940/S90/V90 (M90)

Transmission oil grade . . . . . Volvo P/N: 11 61 423-7

Volume: . . . . . 1.75 liters

S40/V40: M56, S70/V70: M56L, M56L2, M56H, M58

Transmission oil grade . . . . . Volvo P/N: 11 61 423-7

Volume: . . . . . 2.1 liters

940/S90/V90, Final drive, (no oil change required)

Transmission oil grade . . . . . API-GL-5 (6), MIL-L-2105 B or C.
Volvo P/N: 11 61 329-6.

Volume . . . . . 1.3 - 1.75, depending on final drive.

S70/V70 AWD, Bevel gear, type 1155

Transmission oil grade: Synthetic oil, may not be mixed with mineral oil . . . . . Volvo P/N: 11 61 513-5.

Volume . . . . . 0.75 liters

S70/V70 AWD, Final drive, type 1165

Transmission oil grade . . . . . Volvo P/N: 11 61 329-6.

Volume . . . . . 1.35 liters

Power steering

Transmission oil grade . . . . . ATF, type F or G.
Volvo P/N: 11 61 317-1

Volume . . . . . 0.8 liters

Wheels and tires

Model:	Lowest permitted manifold absolute pressure (MAP) in the tires (kPa)	
	Front	Rear
S40/V40	220	200
940/S90	190	190
945/V90	190	210
S70/V70	220	200
C70/S70/V70 with turbocharged engine.	230	210

Note! Figures in the table are guidelines.
Refer also to the decal with tire pressures applied to the relevant model.
The tire pressure is dependent on type of tire, load, temperature and speed.

Front end

Permitted clearance for the ball joint (stub axle – control arm).
Normally load front end.

S40/V40/940/S90/V90/C70/S70/V70:

Axially ..... Max 0.5 mm.

Radially ..... Max 0.5 mm.

Pre-delivery service

Pre-delivery service

Corrective action:	Remarks:
Install components supplied.	Wheelcovers, spoiler, auxiliary lamps, front towing eyelet cover. Install decal according to Service Bulletin: **0-05-803.** **Applies to C70/S70/V70:** Set cargo compartment lighting switch to automatic.
Cars with immobilizer or cars with alarm.	Install decals on the front side window, rear lower corner.
Check/adjust manifold absolute pressure (MAP) in the tire.	See: *Wheels and tires* page 13.
Plug mounting points in the members plugs supplied.	Applies only to: 940/S90/V90.
Remove any brake disc covers.	Refer to Service Bulletin: **5-51-801** and **5-51-905.**
Remove any spring spacers from the springs.	Applies to cars with "low chassis" and all 940 except MFK 23. Refer to Service Bulletin: **1-17-802** and **1-17-908.**
Install the fuses supplied.	
Activate fuses in central electrical unit by pressing the holder down.	Applies to S40/V40 only. Central electrical unit in engine compartment.
Set clock to correct time. **Enter the radio code.**	Adjust the radio for the market.
Check the car battery.	See Service Manual: **Section 0 (05),** and Service Bulletin: **3-31-801, 3-31-901.**
External signal- and light functions.	Check horn, hazard warning signal flasher, turn signal lamp, high and low beam, parking lamps, tail lamps, back-up (reversing) lamps, stop (brake) lamps, etc.
Check, and if necessary, adjust the oil level in the engine.	Check the level at earliest 3 minutes after driving. The car should stand on a flat surface. If necessary: **Fill oil to maximum level.**
Reset service reminder.	Applies to: S40/V40/C70/S70/V70. See: **Section 3(35-38).**
Remove protective (paint) coating.	Refer to Service Bulletin: **1-17-808** respectively **1-17-910.**
Clean the car.	Use car shampoo. If necessary dewax the car.
Check the car for transport damage.	If there is any transport damage repair it so that there will be no customer complaints.
Remove transport protection from floor, seats, and panels, etc. **Ensure that any text and address labels do not remain on the windows.** **Clean if required.**	Check that the driver's area and the rest of the interior is clean and spotless. Always check that the ashtrays, glove compartment, door pockets and seat back pockets are empty. Also check the cargo compartment, spare wheel, tools, warning triangle etc.

Maintenance service

Maintenance service - Content note

S40/V40: 15 000 km (1 year) - 150 000 km (10 years)	*Service programme A - S40/V40, 1996–.* page 15
S40/V40: 165 000 km (11 year) - 300 000 km (20 years).	*Service programme B - S40/V40, 1996–.* page 18
940/S90/V90: 15 000 km (1 year) - 150 000 km (10 years).	*Service programme C - 940/S90/V90* page 20
940/S90/V90: 165 000 km (11 year) - 300 000 km (20 years).	*Service programme D - 940/S90/V90* page 23
C70/S70/V70: 15 000 km (1 year) - 150 000 km (10 years).	*Service programme E - C70/S70/V70* page 26
C70/S70/V70: 165 000 km (11 year) - 300 000 km (20 years).	*Service programme F - C70/S70/V70* page 29

Service programme A - S40/V40, 1996–.

S40/V40:	**Km x 1000:**	**15**	**30**	**45**	**60**	**75**	**90**	**105**	**120**	**135**	**150**
	Year:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	Miles x 1000:	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Crankcase ventilation -clean	**D 4192 T:** Remove splashguard.						x			x	
Engine/transmission -check for leaks		x	x	x	x	x	x	x	x	x	x
Raise the car.											
Engine/transmission -check for leaks	Checking transmission oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x
Engine: Drain engine oil and replace oil filter	**NOTE!** Turbo charged gasoline engines should have an oil change at 5 000km. Do not replace oil filter. Do not reset service indicator.	x	x	x	x	x	x	x	x	x	x

S40/V40:	**Km x 1000:**	**15**	**30**	**45**	**60**	75	**90**	105	120	135	150
	Year:	**1**	**2**	**3**	**4**	5	**6**	7	8	9	10
	Miles x 1000:	**10**	**20**	**30**	**40**	50	**60**	70	80	90	100
Automatic transmission -no oil change	Cars used as taxis or in other hard driving conditions, see: *Lubricating system* page 7.					(x)					(x)
Drive shafts -check play							x	x	x	x	x
-check rubber boots		x	x	x	x	x	x	x	x	x	x
Diesel engine: Auxiliary belt -check/adjust			x		x		x				x
Wheels and tires -check	Check damage and signs of wear	x	x	x	x	x	x	x	x	x	x
Brake pads/ brake discs -check	Minimum brake pad thickness: 2 mm. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check for leakage/damage	Including fuel filter and brake pipes.	x	x	x	x	x	x	x	x	x	x
Fuel filter Gasoline engine -replace								x			
Exhaust system -check	Check: condition, sealing/mounting.	x	x	x	x	x	x	x	x	x	x
Raise front wheels											
Front suspension and steering system -tighten		x									
-check for signs of wear							x	x	x	x	x
Lower front wheels											
Rear suspension -check for signs of wear							x	x	x	x	x
Cars with tow hitch: -tighten tow hitch mounting				x							
Rustproofing/paintwork -check	See: Service Bulletin 1-18-401.			x			x				
Lower the car											
Air cleaner (ACL) -replace	Gasoline and diesel engines.				x				x		
Fuel filter Diesel engine -drain condensed water		x		x		x		x		x	
-replace filter			x		x		x		x		x

S40/V40:	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Spark plugs: Gasoline engine -replace	See specification: *Spark plugs and battery data* page 10.			x			x			x	
Top up engine oil	See specification: *Preface* page 2.	x	x	x	x	x	x	x	x	x	x
Automatic transmission	Cars used as taxis and in other hard driving conditions see: *Transmission* page 11.					(x)					(x)
Fluid levels - engine compartment -check/adjust	Cooling system, brake-, clutch- and steering servo reservoirs and windshield washer fluid.	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery -check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Camshaft-/auxiliaries belt Gasoline and diesel engines: -replace	Install decal when replacing.								x		
Gasoline engine: belt tensioner -check -adjust	Applies to engines with mechanical belt tensioner.	x	x	x	x	x	x	x	x	x	x
Doors, hood and trunk lid -lubricate hinges, hood catch, and control arms	Including the door stop, lugs and lock.	x	x	x	x	x	x	x	x	x	x
Brake fluid -replace	Recommendation to a customer with normal mileage to replace the fluid every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving and driving in humid climates the brake fluid should be changed every year.	x	x	x	x	x	x	x	x	x	x
Service reminder indicator (SRI) - reset		x	x	x	x	x	x	x	x	x	x

Service programme B - S40/V40, 1996–.

S40/V40	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Crankcase ventilation -clean	**D 4192 T:** Remove splashguard.		x			x			x		
Engine/transmission -check for leaks		x	x	x	x	x	x	x	x	x	x
Raise the car											
Engine/transmission -check for leaks	Checking transmission oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x
Engine: Drain oil and replace oil filter		x	x	x	x	x	x	x	x	x	x
Automatic transmission -no oil change	Cars used as taxis or in other hard driving conditions, see: *Lubricating system* page 7.				(x)						(x)
Drive shafts -check play		x	x	x	x	x	x	x	x	x	x
-check rubber boots		x	x	x	x	x	x	x	x	x	x
Diesel engine: Auxiliary belt -check/adjust			x		x				x		x
Wheels and tires -check	Check damage and signs of wear.	x	x	x	x	x	x	x	x	x	x
Brake pads/ brake discs -check	Minimum brake pad thickness: 2 mm. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check for leakage/damage	Including fuel filter and brake pipes.	x	x	x	x	x	x	x	x	x	x
Fuel filter Gasoline engine -replace					x						

S40/V40	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Exhaust system -check	Check: condition, sealing/mounting.	x	x	x	x	x	x	x	x	x	x
Raise front wheels											
Front suspension and steering system -tighten											
-check for signs of wear		x	x	x	x	x	x	x	x	x	x
Lower front wheels											
Rear suspension -check for signs of wear		x	x	x	x	x	x	x	x	x	x
Cars with tow hitch: -tighten tow hitch mounting											
Lower the car											
Air cleaner (ACL) -replace	Gasoline and diesel engines.		x				x				x
Fuel filter Diesel engine -drain condensed water		x		x		x		x		x	
-replace filter			x		x		x		x		x
Spark plugs -replace	See specification: *Spark plugs and battery data* page 10.		x			x			x		
Top up engine oil	See specification: *Lubricating system* page 7.	x	x	x	x	x	x	x	x	x	x
Automatic transmission	Cars used as taxis and in other hard driving conditions see: *Transmission* page 11.					(x)					(x)
Fluid levels - engine compartment -check/adjust	Cooling system, brake-, clutch- and steering servo reservoirs and windshield washer fluid.	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery Check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Camshaft-/auxiliaries belt Gasoline and diesel engines -replace	Install decal when replacing.						x				
Gasoline engine: Belt tensioner -check -adjust	Applies to engines with mechanical belt tensioner.	x	x	x	x	x	x	x	x	x	x

S40/V40	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Doors, hood and tailgate -lubricate hinges, hood catch, and control arms	Including the door stop, lugs and lock.	x	x	x	x	x	x	x	x	x	x
Brake fluid -replace	Recommendation to a customer with normal mileage to replace the fluid every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving and driving in humid climates the brake fluid should be changed every year.	x	x	x	x	x	x	x	x	x	x
Service reminder indicator (SRI) - reset		x	x	x	x	x	x	x	x	x	x

Service programme C - 940/S90/V90

940/S90/V90	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Kickdown-wire -check/adjust	Applies to 940.		x		x		x		x		x
Crankcase ventilation -clean	Clean nipples and hoses Replace flame trap. Turbocharged engines have no flame trap.						x		x		x
Engine -check for leaks	Check from above.	x	x	x	x	x	x	x	x	x	x
Raise the car											
Engine/ gearbox/ transmission -check for leaks	Check from underneath. Only check transmission oil level if there is leakage.	x	x	x	x	x	x	x	x	x	x

940/S90/V90	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Engine oil **Oil filter** Drain oil and replace oil filter	**Note!** Turbo charged gasoline engines have a first oil change at 5 000 km. Do not change the filter. See: *Preface* page 2.	x	x	x	x	x	x	x	x	x	x
Automatic transmission -drain the oil	**Note!** Cars with AW 30-43 used as taxis or which are mainly used for towing should have oil changes every 75 000: km. See: *Transmission* page 11.					x					x
Wheels and tires -check	Check damage and signs of wear.	x	x	x	x	x	x	x	x	x	x
Brake pads/ **brake discs** -check	Minimum brake pad thickness: Front . . . . . 3 mm. Rear . . . . . 2 mm. To measure front pad thickness see: Service Manual Section 5. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check leakage/damage	Including fuel filter and brake pipes.	x	x	x	x	x	x	x	x	x	x
Fuel filter **Gasoline engine** -replace								x			
Final drive -check for leaks	Only check oil level if there is leakage.	x	x	x	x	x	x	x	x	x	x
Exhaust system -check	Check: condition, sealing/mounting.				x	x	x	x	x	x	x
Raise front wheels											
Front suspension and steering system -tighten	Applies to 940.	x									
-check for signs of wear	Including shock absorber.				x	x	x	x	x	x	x
Propeller shaft, pilot bearing, universal joint -check for signs of wear					x	x	x	x	x	x	x
Rear suspension -tighten	Applies to 940 and cars with tow hitch.	x									
-check for signs of wear	Including shock absorber.				x	x	x	x	x	x	x

940/S90/V90	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Rustproofing/paintwork -check	Markets with anti-corrosion warranty: Rustproofing inspection after 3 and 6 years, see Service Bulletin: 1-18-1.			x			x				
Lower the car											
Air cleaner (ACL) -replace					x				x		
Spark plugs -replace	See specification: *Spark plugs and battery data* page 10. F engines.			x			x			x	
	G engines	x	x	x	x	x	x	x	x	x	x
Valves -check/adjust clearance	940 only.			x				x			
Top up engine oil	See specification: *Lubricating system* page 7.	x	x	x	x	x	x	x	x	x	x
Automatic transmission -top up with oil	940 only See specification: *Transmission* page 11.				x				x		
Fluid levels - engine compartment -check/adjust	Cooling system, brake-, clutch- and steering servo reservoirs and windshield washer fluid.	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery -check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Auxiliary equipment, drive belts -check/adjust	940 only		x		x		x		x		x
-replace belt	S90/V90 Only.						x				
Timing belt B 200/230 -replace	Check tension pulley and lubricate locating pin.					x					x
-adjust	15 000 km after replacing belt.	x					x				
Timing belt B6254/6304 -replace	Install the decal.								x		
Belt tensioner -check -adjust		x	x	x	x						
EGR-system -clean	Only: B 230 FK (EGR).						x				

940/S90/V90	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Doors, hood -lubricate		x	x	x	x	x	x	x	x	x	x
Brake fluid -replace	Recommendation to customer with normal mileage to change the oil every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving and driving in humid climates the brake fluid should be changed every year.	x	x	x	x	x	x	x	x	x	x

Service programme D - 940/S90/V90

940/S90/V90	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Kickdown-wire -check/adjust	Applies to 940.		x		x		x		x		x
Crankcase ventilation -clean	Clean nipples and hoses Replace flame trap. Turbocharged engines have no flame trap.		x		x		x		x		x
Engine -check for leaks	Check from above.	x	x	x	x	x	x	x	x	x	x
Raise the car											
Engine/ gearbox/ transmission -check for leaks	Check from underneath. Only check transmission oil level if there is leakage.	x	x	x	x	x	x	x	x	x	x

940/S90/V90	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Engine oil **Oil filter** -Drain oil and replace oil filter	**Note!** Turbo charged gasoline engines have a first oil change at 5 000 km. Do not change the filter. See: *Preface* page 2.	x	x	x	x	x	x	x	x	x	x
Automatic transmission -drain the oil	**Note!** Cars with AW 30-43 used as taxis or which are mainly used for towing should have oil changes every 75 000: km. See: *Transmission* page 11.					x					x
Wheels and tires -check	Check damage and signs of wear.	x	x	x	x	x	x	x	x	x	x
Brake pads/ **brake discs** -check	Minimum brake pad thickness: Front . . . . . 3 mm. Rear . . . . . 2 mm. To measure front pad thickness see: Service Manual Section 5. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check leakage/damage	Including fuel filter and brake pipes.	x	x	x	x	x	x	x	x	x	x
Fuel filter **Gasoline engine** -replace					x						
Final drive -check for leaks	Only check oil level if there is leakage.	x	x	x	x	x	x	x	x	x	x
Exhaust system -check	Check: condition, sealing/mounting.	x	x	x	x	x	x	x	x	x	x
Raise front wheels											
Front suspension and steering system -tighten	Applies to 940.										
-check for signs of wear	Including shock absorber.	x	x	x	x	x	x	x	x	x	x
Propeller shaft, pilot bearing, universal joint -check for signs of wear		x	x	x	x	x	x	x	x	x	x
Rear suspension -tighten	Applies to 940 and cars with tow hitch.										
-check for signs of wear	Including shock absorber.	x	x	x	x	x	x	x	x	x	x
Lower the car											
Air cleaner (ACL) -replace			x				x				x

940/S90/V90	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Spark plugs -replace	See specification: *Spark plugs and battery data* page 10. F engines.		x			x			x		
	G engines	x	x	x	x	x	x	x	x	x	x
Valves -check/adjust clearance	940 only	x				x				x	
Top up engine oil	See specification: *Lubricating system* page 7.	x	x	x	x	x	x	x	x	x	x
Automatic transmission -top up with oil	940 only See specification: *Transmission* page 11.		x				x				x
Fluid levels - engine compartment -check/adjust	Cooling system, brake-, clutch- and steering servo reservoirs and windshield washer fluid.	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery -check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Auxiliary equipment, drive belts -check/adjust	940 only		x		x		x		x		x
-replace belt	S90/V90 Only.		x						x		
Timing belt B 200/230 -replace	Check tension pulley and lubricate locating pin.					x					x
-adjust	15 000 km after replacing belt.	x					x				
Timing belt B6254/6304 -replace	Install the decal.						x				
Belt tensioner -check -adjust		x	x	x	x						
EGR-system -clean	Only: B 230 FK (EGR).		x						x		
Doors, hood -lubricate		x	x	x	x	x	x	x	x	x	x

940/S90/V90	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Brake fluid -replace	Recommendation to customer with normal mileage to change the oil every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving and driving in humid climates the brake fluid should be changed every year.	x	x	x	x	x	x	x	x	x	x

Service programme E - C70/S70/V70

C70/S70/V70	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Crankcase ventilation -clean	Clean nipples and hoses Remove flame trap. Should not be reinstalled.						x			x	
Engine/ transmission -check for leaks	Check from above.	x	x	x	x	x	x	x	x	x	x
Raise the car											
Engine/ gearbox/ transmission -check for leaks	Check from underneath. Check oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x

C70/S70/V70	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Engine oil Drain oil and replace oil filter	**Note!** Turbo charged gasoline engines have the first oil change at 5 000 km. Do not change the filter. Do not reset the service reminder indicator (SRI) at this oil change. See: *Work with the Volvo Service programme as follows* page 2.	x	x	x	x	x	x	x	x	x	x
Constant velocity joints -check for signs of wear							x	x	x	x	x
-check boots		x	x	x	x	x	x	x	x	x	x
Automatic transmission Does not normally need changing. See specifications *Transmission* page 11 -drain the oil	**Note!** Cars used as taxis or mainly used for towing should have the oil changed every 75 000: km. See: *Transmission* page 11.					x					x
Wheels and tires -check	Check damage and signs of wear.	x	x	x	x	x	x	x	x	x	x
Brake pads/ and brake discs -check	Minimum brake pad thickness: Front . . . . . 3 mm. Rear . . . . . 2 mm. To measure front pad thickness see: Service Manual Section 5. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check leakage/damage	Including fuel filter and brake pipes.						x	x	x	x	x
Gasoline engine Fuel filter -replace								x			
Exhaust system -check	Check: condition, sealing/mounting.						x	x	x	x	x
Raise front wheels											
Front suspension and steering system -check for signs of wear	Including shock absorber.						x	x	x	x	x
Rear suspension -check for signs of wear	Including shock absorber.						x	x	x	x	x
AWD: Final drive and bevel gear -check for leaks	Check oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x

C70/S70/V70	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
AWD: Propeller shaft, pilot bearing and universal joint -check							x	x	x	x	x
Rustproofing/paintwork -check	Markets with anti-corrosion warranty: Inpecting rustproofing after 3 and 6 years.			x			x				
Lower the car											
Air cleaner (ACL) -replace	Clean air cleaner (ACL) housing				x				x		
Spark plugs -replace	See specification: *Spark plugs and battery data* page 10.			x			x			x	
Top up engine oil	See specification: *Lubricating system* page 7.	x	x	x	x	x	x	x	x	x	x
Diesel engine Fuel filter -drain condensed water		x	x		x	x		x	x		x
-replace				x			x			x	
Fluid levels - engine compartment -check	Cooling system, brake, clutch and steering servo reservoirs and washer reservoir	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery -check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Auxiliary equipment, drive belts -replace belt							x				
Diesel engine: Fuel injection pump	Checking/adjusting pump dynamic settings.	x	x	x	x	x	x	x	x	x	x
Diesel engine: Camshaft-/ injection pump belt -check/adjust	Check belt tension and belt tensioner.	x		x		x		x		x	
Diesel engine: injection pump belt -replace					x				x		
Diesel engine: Belt tensioner camshaft/ injection pump belt -replace									x		

C70/S70/V70	Km x 1000:	15	30	45	60	75	90	105	120	135	150
	Year:	1	2	3	4	5	6	7	8	9	10
	Miles x 1000:	10	20	30	40	50	60	70	80	90	100
Timing belt -replace	Applies to all engines. Install the decal.								x		
Gasoline engine **Belt tensioner for Timing belt** -check -adjust	Applies to engines with mechanical belt tensioner.	x		x		x		x		x	
Diesel engine: EGR-system -clean							x				
-check							x				
Doors, hood -lubricate		x	x	x	x	x	x	x	x	x	x
Service reminder indicator (SRI) - reset		x	x	x	x	x	x	x	x	x	x
Brake fluid -replace	Recommendation to customer with normal mileage to change the oil every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving or driving in humid climates the fluid should be replaced every year.	x	x	x	x	x	x	x	x	x	x

Service programme F - C70/S70/V70

C70/S70/V70	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Automatic transmission control -check park/neutral position (PNP) switch	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Parking brake -check/adjust	Check when running-in. Adjust on raised car.	x	x	x	x	x	x	x	x	x	x
Exterior lighting -check function	Check when running-in.	x	x	x	x	x	x	x	x	x	x
Washer/wipers for windshields and headlamps -check function/signs of wear		x	x	x	x	x	x	x	x	x	x
Crankcase ventilation -clean	Clean nipples and hoses Remove flame trap. Should not be reinstalled.		x			x			x		

C70/S70/V70	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Engine/transmission -check for leaks	Check from above.	x	x	x	x	x	x	x	x	x	x
Raise the car											
Engine/gearbox and transmission -check for leaks	Check from underneath. Check oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x
Engine oil -Drain oil and replace oil filter		x	x	x	x	x	x	x	x	x	x
Constant velocity joints -check for signs of wear		x	x	x	x	x	x	x	x	x	x
-check boots		x	x	x	x	x	x	x	x	x	x
Automatic transmission Does not normally need changing. See specifications *Transmission* page 11 -drain the oil	**Note!** Cars used as taxis or mainly used for towing should have the oil changed every 75 000: km. See: *Transmission* page 11.					x					x
Wheels and tires -check	Check damage and signs of wear.	x	x	x	x	x	x	x	x	x	x
Brake pads/ and brake discs -check	Minimum brake pad thickness: Front . . . . . 3 mm. Rear . . . . . 2 mm. To measure front pad thickness see: Service Manual Section 5. Check brake disc thickness and condition when replacing brake pads.	x	x	x	x	x	x	x	x	x	x
Brake-/fuel lines -check leakage/damage	Including fuel filter and brake pipes.	x	x	x	x	x	x	x	x	x	x
Gasoline engine: Fuel filter -replace					x						
Exhaust system -check	Check: condition, sealing/mounting.	x	x	x	x	x	x	x	x	x	x
Raise front wheels											
Front suspension and steering system -check for signs of wear	Including shock absorber.	x	x	x	x	x	x	x	x	x	x
Rear suspension -check for signs of wear	Including shock absorber.	x	x	x	x	x	x	x	x	x	x
AWD: Final drive and bevel gear -check for leaks	Check oil level only if there is leakage.	x	x	x	x	x	x	x	x	x	x

C70/S70/V70	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
AWD: Propeller shaft, pilot bearing and universal joint -check		x	x	x	x	x	x	x	x	x	x
Lower the car											
Air cleaner (ACL) -replace	Clean air cleaner (ACL) housing		x				x				x
Spark plugs -replace	See specification: *Spark plugs and battery data* page 10.		x			x			x		
Top up engine oil	See specification: *Lubricating system* page 7.	x	x	x	x	x	x	x	x	x	x
Diesel engine: Fuel filter -Drain off condensation		x		x	x		x	x		x	x
-replace			x			x			x		
Fluid levels - engine compartment -check	Cooling system, brake-, clutch- and steering servo reservoirs and windshield washer fluid.	x	x	x	x	x	x	x	x	x	x
Coolant -check/adjust	Anti-freeze rating/ anti-corrosion agent.	x	x	x	x	x	x	x	x	x	x
Battery -check: poles, electrolyte level/installation		x	x	x	x	x	x	x	x	x	x
Auxiliary equipment, drive belts -replace belt			x						x		
Diesel engine: Fuel injection pump	Checking/adjusting pump dynamic settings.	x	x	x	x	x	x	x	x	x	x
Diesel engine: Camshaft and injection pump belt -check/adjust	Check belt tension and belt tensioner.	x		x		x		x		x	
Diesel engine: injection pump belt -replace			x				x				x
Diesel engine: Belt tensioner Camshaft-/ injection pump belt -replace							x				
Timing belt -replace	Applies to all engines. Install the decal.						x				

C70/S70/V70	Km x 1000:	165	180	195	210	225	240	255	270	285	300
	Year:	11	12	13	14	15	16	17	18	19	20
	Miles x 1000:	110	120	130	140	150	160	170	180	190	200
Petrol engines: Belt tensioner for Timing belt -check: -adjust	Applies to engines with mechanical belt tensioner.	x		x		x		x		x	
Diesel engine: EGR-system -clean			x						x		
-check			x						x		
Doors, hood -lubricate		x	x	x	x	x	x	x	x	x	x
Service reminder indicator (SRI) - reset		x	x	x	x	x	x	x	x	x	x
Brake fluid -replace	Recommendation to customer with normal mileage to change the oil every other year.		(x)		(x)		(x)		(x)		(x)
	Note! If mountain driving or driving in humid climates the fluid should be replaced every year.	x	x	x	x	x	x	x	x	x	x

Option

Option

Check the following from inside the car:

Interior rear view mirror and door mirrors	Check that the mirror glass is undamaged and that the mirror can be moved to anti-dazzle position. Check the mirror mounting. If the car is equipped with power door mirrors, check the function.
Glove compartment lighting	Check function
Courtesy lighting	Check function
Indicator lamps	Check function of all control and warning lamps.
Instrument lighting	Check function and that the lighting strength can be controlled.
Climate control, heater control and fan	Check function switch.
Rear windshield demister	Check that switch lamp functions.
Signal	Check function
Turn signal lamps	Check function and low beam setting.
High and low beam	Check function and low beam setting.
Seat belts	Pull the seat belt and check the lock function, inspect the seat belt, mountings and locks for any signs of wear or damage. Check that the warning system functions.
Front seats C70	Check that the manual locking function functions by pulling on the red strap on the front seat. See instruction book.

Check the following from outside the car:

Exterior lighting and reflectors and any foglamps front and rear	Check function and any damage. Check beam alignment.
License (number) plate front and rear	Check mounting and any damage. Check license plate lights function.
Body and glass	Check windshield condition and any defects in the other windows. Inspect for bodywork damage that needs correcting or touching up.
Doors	Check all the door lock functions and hinges and doorstops. Check the weather-strips, lock facing and window lift mechanisms.
Exterior door mirrors	Check mountings and that the glass is undamaged. Test the bend function.
Wheels, tires and mudguards	Check/adjust the tire pressure. Check the condition of the wheels. Check the mudguard mountings.
Tow hitch	Check mounting, damage/signs of wear and electrical output. Detachable tow hitch should be lubricated according to Service Bulletin: 8-89-904 and 8-89-810.
Gasoline/diesel heater	Check function

Recommendations to the customer:

Battery replacement	Replacing batteries every other year applying also to equipment such as remote control or similar.
Power antenna	Cleaning and lubrication at every service.
Passenger compartment ventilation filter/Pollen filter	Replace at every service.

Test driving

Test driving

Test driving is done to check that the car is in perfect condition when it leaves the workshop.

Test driving should be carried out at every service.

Make the following checks while test driving and correct if necessary:

Check before starting engine that:

- ignition and steering wheel lock and remote control function.
- indicator lamps and instrument function and "fault lamp" and warning lamps for SRS and ABS if appropriate.

Automatic transmission:

- starter motor only functions in position P and N and back-up (reversing) lamp only in position R.

Check when starting the engine that:

- the starter motor functions normally without strange noise.
- the engine starts normally.
- the brake pedal sinks slightly and that servo function is normal (not ABS).

Check when starting driving that:

- the clutch does not snatch or slip.
- acceleration is normal and that no "pinking" or other abnormality occur.
  Accelerate from 2500– 4500 rpm by using wide open throttle (WOT).
  Check on cars with turbocharged engines that the boost pressure gauge indicates 75– 100% (if the car has a boost pressure gauge).
- the transmission functions normally with no abnormal noise.
- there is no play or abnormal stiffness in the steering.
- the steering wheel position is correct and that it centers after turning correctly.
- no imbalance in the wheels.
- no vibration or abnormal noise from the transmission occurs,

Continue driving and check that:

- no misalignment occurs or that the car feels unstable.
- the engine reaches normal operating temperature within the correct time.
- no abnormal noise is heard from the bodywork, front end or rear suspension.
- no abnormal wind noise occurs.
- climate control and controls function normally.

Check while braking that:

- pedal force is normal and that there is no vibration.
  NOTE! Cars with ABS give brake pulses if there is a risk of wheel lock-up.
- parking brake function is optimum.

Additionally for automatic transmission:

Check that:

- the shift-lock in position P functions and that the lever remains in position.
- no slippage occurs at stalling speed in position D or R.
  NOTE! Attention must always be paid to the traffic situation and safety.
- the transmission changes down and the car engine brakes when the lever is moved from a higher to a lower gear position.

Check after the test drive that:

- the engine does not backfire when shut-off.
- no outer leakage occurs in the engine compartment.
- The "service components " are installed and that nothing abnormal can be seen.
- wipe off any oil spillage or dirty "finger prints".
- no obvious faults can be seen in the bodywork or interior trim.

Wipe the steering wheel and gear selector lever and check that the vehicle does not show any traces of the visit to the workshop.

Going through the service sheet

Go through the service sheet with the customer.

Inform the customer of what has been done in the servicing and any observations from the test drive.

Book an appointment with the customer if further repairwork is recommended to ensure trouble-free motoring.

Treat the customer in a manner that gives faith in the workshops care of his car.

Welcome the customer back for his next service!

Comments

To

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